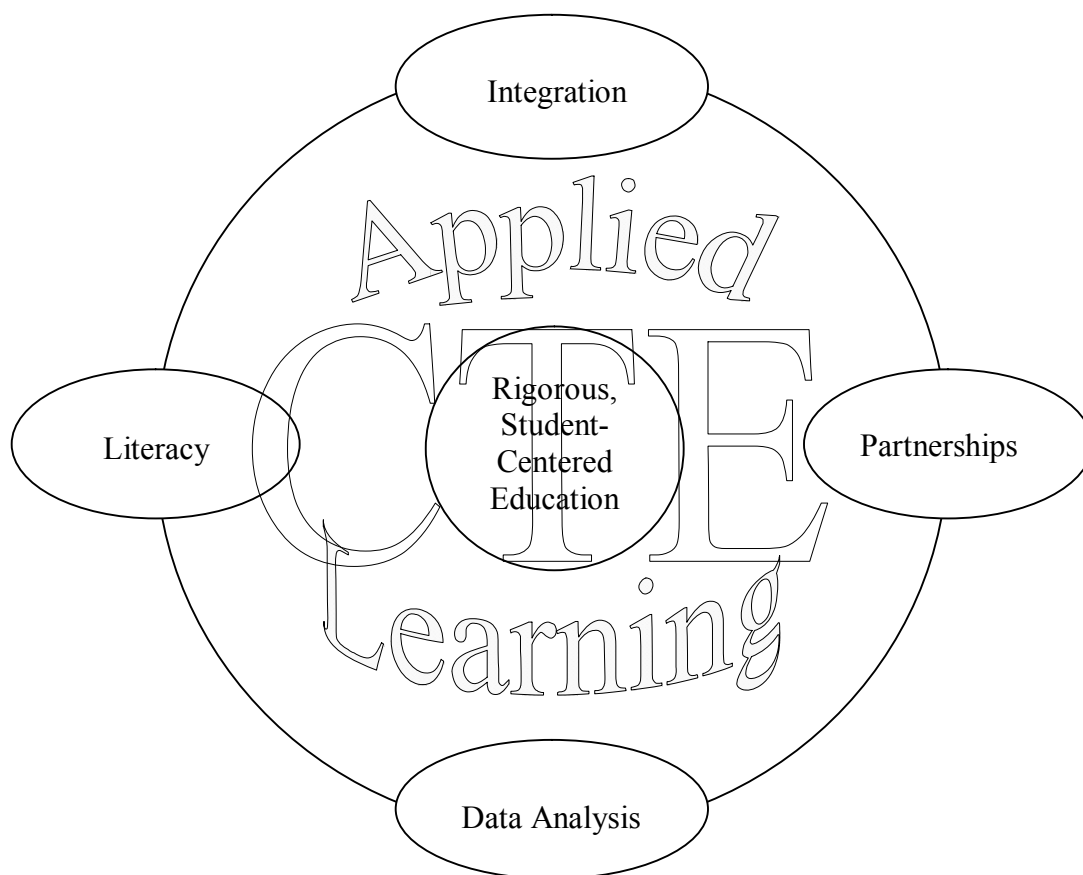


# **A Strategic Plan for the Future of Career and Technical Education in Maine**

**February 16, 2005**



## TABLE OF CONTENTS

Introduction	3
Bloom’s Taxonomy Chart	6
Statewide Educational Reform Context	6
Organization of the Plan	9
Mission Statement and Vision	11
Vision Area #1: A Student-Centered Education	12
Vision Area #2: Integration	16
Vision Area #3: Literacy	25
Vision Area #4: Data Analysis	30
Vision Area #5: Partnership	34
Partial List of Stakeholder Associations and Institutions	38
Members of State Advisory Committee on Career and Technical Education	39
Glossary	42
Color Code	42

# **Career and Technical Education Strategic Vision**

## ***Introduction***

### **Overview:**

At no time in our recent history has there existed such widespread agreement that secondary education must adapt—and rapidly—to the increasing expectations for student performance. Indeed, as the educational implications of the 21<sup>st</sup> Century economy become clearer, focus has sharpened on preparing all students for post-secondary education, which the vast majority of emerging careers will require. Demographic trends, which highlight the reality of burgeoning numbers of retirees and shrinking numbers of younger workers, have only heightened the need to invest in the education of each of our young people.

As Marc Tucker, President of the National Center for Education and the Economy, points out, “Low-skill jobs are disappearing at increasing speed. And the higher skill jobs that are proliferating require the very qualities that good educators have always valued: broad and deep knowledge, a critical mind, the capacity for autonomous and thoughtful behavior, the ability to relate productively to others, the ability to think well and the capacity to learn what one needs to learn when one needs to learn it.”

It is against this increasingly urgent backdrop that the Career and Technical Education (CTE) strategic visioning process has taken place. Commissioner Susan A. Gendron charged the CTE Advisory Committee, formed to conduct the visioning process, with developing a bold and transformational vision for the future of CTE in Maine. At the same time, Commissioner Gendron also charged all Department secondary education reform initiatives to achieve a new level of coordination and collaboration. In the days ahead, as the recommendations and action strategies contained in this report serve as a blueprint for reform, Maine must also work toward unprecedented coordination among state agencies, private non-profit organizations, secondary and post-secondary educational institutions, and business and industry.

In evidence throughout the following pages is the profound influence of Dr. Willard Daggett of the National Center for Leadership in Education. Dr. Daggett (or Bill as he is known in Maine) delivered a powerful keynote address at the outset of the three-day strategic visioning event in the summer of 2004, then remained for the entire three days to offer insights, critical feedback, and inspiration to the 80+ participants. His deep knowledge of the looming changes in technology, the workplace of the future, and promising educational reform strategies permitted the three days of planning to “look over the horizon” and to produce a result that has the potential to stimulate significant change.

### **Historical Perspective:**

Prior to looking over the horizon, however, it is important to consider how vocational and technical education has evolved over the decades:

Federal legislation has played a major role in the shaping of vocational education. The Smith-Hughes Act of 1917 provided financial aid for vocational education in public secondary education. It was the first time that the Federal government gave states money for education. At that time vocational education was a method of education that helped students, who were hands-on learners, apply the academic concepts they were being taught. It was an integrated system at the turn of the century.

The basic elements of vocational education remained the same until 1963. It was then that the government made a major policy shift and established set-asides for underserved populations. Successive Federal Acts sought to make improvements in planning, program improvement, sex-role stereotyping, access and public/private sector cooperation.

The effect of the separate legislation was the separation of secondary vocational education programs from other education programs and the view that these programs were solely for disadvantaged youth.

In the 1990s there was another significant shift in Federal policy and that was the integration of academic and vocational-technical education in order to prepare a competitive and highly-skilled workforce. (That was the first Carl D. Perkins Vocational and Applied Technology Education Act-1990.) Perkins II focused on the integration of vocational-technical education with academics, articulation between secondary and postsecondary education and partnerships with business and labor.

Perkins III has built upon that foundation and offers somewhat more flexibility in exchange for a great deal more accountability. The basic intent of Congress was to assist the states in the promotion of continuous improvement of secondary and postsecondary vocational programs. The legislation also removes the funding of set-asides, but requires each state to establish a State Performance Accountability System and to assure continued services to populations previously served through the set-asides.

### **The Positive Core of CTE**

In 1915 John Dewey wrote, “Effective education requires student-centered environments for educational purposes, and integration of the head and hand, of mind and action, and of academic and vocational.” That is as true today as it was in 1915 and that duality is reflected in the Positive Core of CTE as well as in the Vision Areas of the strategic plan.

An especially important part of the CTE Visioning Conference in June was the participants’ identification of the “positive core” of CTE – its qualities and attributes when CTE is at its best, the core strengths of CTE to build on in the future. The attributes, arranged under five categories, are as follows:

#### *Applied Learning Model*

- Integration of knowledge and application; translation into real life skills through hands-on, applied learning, reinforcing academic concepts
- Opportunities relevant to students’ interests and aptitudes
- Natural links to academics and to business and industry

#### *Industry/Career Pathway Standards*

- Insures that technical skills and knowledge in programs are current and valid
- Universal acceptance of skill attainment and portability of credentials and credits
- Enables articulation with post-secondary programs

#### *Student Engagement*

- A voluntary alternative, accessible to all
- Student involvement in learning and teaching
- Love of learning, leading to lifelong learning
- Practicing work ethic in an adult environment

- Increased student confidence, self-esteem

#### *A Committed Faculty*

- Supported and inspired by its close ties to industry
- Passionate and knowledgeable
- Flexible – able to individualize learning for students

#### *Relationships*

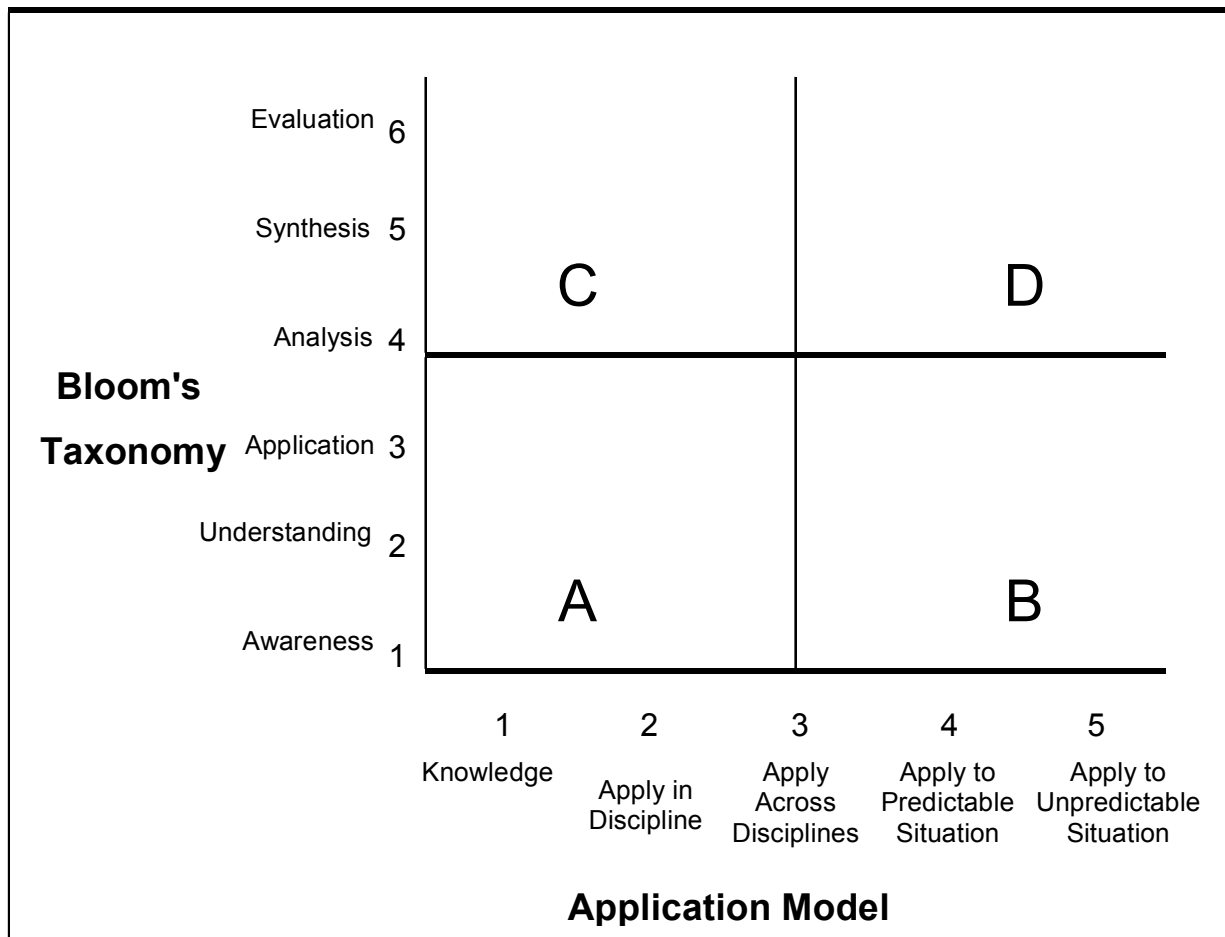
- Teacher-student relationships are human, personal
- Students feel valued
- Small class size

The Applied Learning Model, with a focus on technical skill attainment and related concepts, lies at the heart of CTE. Applied learning is what allows CTE to have a positive impact on students, as it helps to ensure student engagement in the learning process and a close relationship with CTE faculty members. Thus, applied learning informs this strategic plan in all its areas.

Also informing the plan are the characteristics of the thirty best high schools in the United States as identified in the *Bringing Successful Practices to Scale* initiative conducted by the Council of Chief State School Officers and the International Center for Leadership in Education. Those characteristics are:

- Focusing instruction around student's interests, learning styles, and aptitudes through a variety of small learning community approaches, most commonly academies
- Administrators and teachers share an unrelenting commitment to excellence for all students
- Emphasis on literacy across the curriculum
- A laser-like focus on data at the classroom level to make daily instructional decisions for individual students
- An extraordinary commitment of resources and attention to 9<sup>th</sup> grade students
- A rigorous and relevant 12<sup>th</sup> grade year
- High quality curriculum and instruction that focuses on rigor, relevance, relationships and reflective thought
- Solid and dedicated leadership

In order to prepare Maine's young people to live in a technological world and in order to develop a world-class workforce, schools must create a framework in which application skills as well as academic skills are strengthened. Below is the Application Model developed by the International Center for Leadership in Education. This model contains four quadrants, each with different hierarchies of acquisition and application of knowledge. Currently college preparatory programs operate in the "C" quadrant and CTE programs operate in the "B" quadrant. The goal for Maine is the preparation of **ALL** students to enable them to function in the "D" quadrant where they will be able to apply knowledge in unpredictable situations. In this report, that will be referred to as Quadrant D Learning.



### The Statewide Educational Reform Context:

Participants in the three-day June conference discovered that they were creating their vision for the future of CTE in a complex, many-layered context that includes, among other things, a series of statewide educational initiatives currently underway:

- Chapter 127 implementation, including development of Local Assessment Systems as the basis for student high school graduation.
- Gender Equity Task Force
- Citizenship Education Task Force
- Compact for Higher Education
- Maine *Learning Results* Review process
- P-16 Task Force
- Task Force on Teacher Workload
- Great Maine Schools Project
- Laptop Initiative (MLTI)
- Governor's Economic Development Task Force

As the visioning continued, participants developed a strong consensus that the consolidation of statewide initiatives would be highly desirable, not only for congruency among them all but also for the greater coherence and seamlessness of Maine's educational system itself. That desire became an assumption or premise of the CTE vision and an invitation to all

educators – a sort of “Declaration of Interdependence” – and the participants expressed it in this way:

*“We strongly recommend that the State of Maine incorporate its educational initiatives, K-16 and lifelong, in a student-centered, statewide, systems-based consolidated plan that is data-driven, accountable, and supported by all stakeholders of the community.”*

Moreover, the participants proposed a series of strategies in support of the recommendation which include convening representatives from the initiative groups to identify common themes centered around the latest research (e.g., Willard Daggett’s findings), connecting or collapsing multiple initiatives wherever possible, and developing criteria to evaluate educational initiatives; e.g., data-driven/analyzed, student-centered, outcome-based/warranted (measurable), and collaborative.

### **Integration**

Vision Area #2, Integration, is perhaps the most important, yet most difficult vision to achieve. All secondary learning institutions must support the integration of rigorous and relevant career, academic, interpersonal, technical and life skills with applied learning models in all aspects of the teaching and learning process, for all students, at all grade levels. Thus we ensure the greatest probability of success in our students’ personal and professional lives.

The State Advisory Committee on Career and Technical Education and the Stakeholder Groups all agreed that there is an urgent need to build an integrated, collaborative, dynamic educational system that provides opportunities for all Maine students. Thus Maine will achieve the vision that each Maine student graduates from high school college ready and able to meet the challenges of a technology-based economy. The Committee also recognized that total integration is a long-term transformational process which has to start now.

### **Preparing for Implementation:**

Among the themes that ran throughout Dr. Daggett’s contributions to the CTE process were rigor, relevance, and personalization. In order to bring these core principles of standards-based reform to the educational experience for all students, the Maine Department of Education will encourage and support a new level of innovation—indeed transformation—in our secondary learning institutions. Yet the challenges we face are numerous and formidable. The transformational changes outlined in this report will not occur without the presence of certain contributing factors during the implementation phase:

- Leadership at all levels will need to become familiar with this report and translate the recommendations into concrete actions, including development of sufficient resources;
- The newly formed Secondary Collaborative within the Department will need to overcome the tendency to fragment along the lines of traditional programmatic silos and achieve coherence and efficiency;
- The Maine Association of Vocational Education Administrators (MAVEA) must assume a coordinating and catalytic role: stimulating innovation, identifying and overcoming obstacles, and applying the recommendations of this report to widely divergent local situations;

- Program innovations currently underway, and pilot programs that emerge in the near future, must serve as models for further development. Both Maine DOE and MAVEA will need to ensure that obstacles are identified and addressed successfully; and
- New and creative solutions must be identified to the obstacles in coordination presented by the CTE regional centers, where students come from as many as 23 different sending schools.
- Creative solutions must be developed with regard to current physical structures to limit the impact of physical barriers on the creation of a truly integrated system. Models in other states or countries might serve to stimulate that creativity.

Without the above conditions the recommendations contained in this report may not come to life as envisioned during its development. As is true in any strategic planning process, implementation is key. Toward that end a number of important steps to assist effective implementation are being taken as the strategic visioning process comes to a conclusion:

- The CTE Advisory Committee that has guided the visioning process is being reconstituted, retaining many of its original members but adding representation from high school principals, guidance counselors, content area teachers, business and industry, and higher education, involvement of which will be crucial for effective implementation;
- The reconstituted Advisory Committee has created a framework to establish a core group of subcommittees charged with the further development of action steps, timeline benchmarks, resource needs, and evaluation indicators. These extended implementation supports will be monitored by the Advisory Committee as a whole to ensure progress is both documented and celebrated;
- DOE staff members have begun developing rich case studies and vignettes of innovative programs and practices to help guide the work in local CTE centers and programs. These models for innovation come from both state and national settings; the Maine examples are particularly exciting and potentially powerful since the resource people are close at hand; and
- The context for reform in Maine secondary education institutions will be the subject of a coordinated public information campaign among a group of stakeholder organizations including the Mitchell Institute, the Compact for Higher Education, the Coalition for Excellence in Education, Maine Public Broadcasting, Jobs for Maine's Graduates, and others. This statewide information will assist local educators in creating a more effective context for reform.

Further opportunities for leveraging reform will come about as the rules of the Department of Education pertaining to Career and Technical Education programs (Chapter 232) are revised in the near future. In addition, it appears that the reauthorization of the Perkins Act will add federal support for the types of reform outlined in this report. As Maine develops its next statewide Perkins plan, key themes and strategies contained herein can be interwoven into the framework by which CTE programs obtain some of their financial support. As Maine works



to coordinate all programs under the Secondary Collaborative, these additional funding opportunities can be utilized as well to focus applications around CTE and secondary school integration.

Maine is committed to building upon the federal framework and has already increased the rigor of its CTE offerings through the Curriculum Integration Project (CIP), a partnership between MAVEA and the Department of Education. The CIP initiative has increased both academic and technical rigor in Maine's CTE schools and has established state CTE standards that are correlated with national industry standards. These activities have resulted in increased enrollments in CTE programs and increased high school graduation rates for CTE students. Maine's CTE programs provide a strong base upon which to build and improve.

What became clear during the three days of visioning was the vast difference that exists across CTE programs in Maine. Implementation of this series of recommendations will by nature be a very situational undertaking, which is to say that some programs may be ready to consider planning for the creation of a magnet school or pilot career academy structure. Other programs will be at the other end of a continuum of options, ready only to strengthen literacy development planning with sending schools. The key, however, will be to orchestrate local planning processes based on this report, which must lead to the development of an action plan tailored to the needs of each setting.

### **The Organization of the Plan**

The plan is organized around the five areas of the vision for CTE. Within each area, the plan includes these sections:

- A vision statement, in the present tense, following the convention that a vision is expressed as if it were already completed;
- System design elements, strategies, and action steps: the desired changes in the elements of the educational system, followed by strategies to pursue and specific action steps with dates for completion and the names, wherever possible, of groups and individuals who will initiate the action steps.

*(Note that the “System Design Elements” differ from area to area, because within each area planners identified just those elements needing enhancement and change. The following is the comprehensive list of Design Elements from which the group worked: educational practice, program design, professional development, structure, students and student services, relationships, leadership, access and equity, and regulation and policy.)*

The vision areas in this strategic plan mirror fairly close to the six “Core Principles for Secondary Education Practice in Maine” found in Maine's high school reform initiative, *Promising Futures, A Call to Improve Learning for Maine's Secondary Schools*. Working together—students, parents, business people, and educators at all levels—Maine can achieve its goal of bringing quality educational opportunities to each of its students in order to prepare them for the world that lies ahead.

*Note 1: Participants in the June conference identified “Rigorous Expectations” as an essential aspect of CTE and wrote a vision statement about it, as follows:*

***“All students are enrolled in programs based on high standards and expectations in a dynamic, responsive, and collaborative environment. These programs match the needs and interests of students, ensure their entrance into post-secondary education and high-skills employment, and enable them to play a positive role in their community.”***

*The CTE Advisory Committee, in its work during the summer, decided to incorporate “rigorous expectations” in the other vision areas, particularly #2, Integration. Committee members agreed that rigor and high expectations are important across the system and should infuse every area of the strategic plan.*

*Note 2:*

*This version of the report includes the work of the statewide CTE Visioning Conference in June 2004, and the refinement and development of that work by the statewide CTE Advisory Committee in six meetings over the course of the summer of 2004. It also includes the feedback from the September 15, 2004 meeting with stakeholders from the summer three-day event. Participants had the opportunity to review the plan, present feedback to it, and identify ways they could contribute to its implementation.*

*For full documentation of the work of the June conference, please refer to, “A Report on the CTE Visioning Conference: Building a Vision for the Future of Career and Technical Education in Maine.”*

# Career and Technical Education in Maine

## *Mission Statement*

The mission of Career and Technical Education, as part of the educational system in Maine, is to ensure that students acquire the high-quality technical skills that will prepare them for post-secondary education and entry into an ever-changing workplace and society and meet the rigorous academic standards of Maine's Learning Results.

## *Our Vision*

1. The learning and development needs of students govern educational decisions.
2. All students benefit from an integrated system of academic and applied learning, based on rigorous expectations and standards, throughout their school experience.
3. All students and teachers place the highest priority on students' attainment of literacy at levels that will serve them throughout their lives as productive citizens and lifelong learners.
4. Rigorous data analysis drives educational decisions and resource allocation and contributes to continuous improvement.
5. A partnership between education (K-16), business and industry enriches both sectors and informs all students' educational experience.

## Vision Area, Strategies and Action Steps

### Vision Area #1: A Student-Centered Education

*The learning and development needs of students govern educational decisions.*

#### **Vision:**

We embrace the natural learning capacity and desire for authentic learning that each learner brings to our educational community. We commit ourselves to our students, learning from them and with them, knowing where their passion and talents lie, and providing an environment in which their skills, knowledge, and commitment to life-long learning can grow.

Correlates with *Promising Futures* Core Principles:

Core Principle 1: A safe, respectful and caring environment.

Core Principle 2: High universal expectations with a variety of learning opportunities.

Core Principle 5: Equitable and democratic practices.

Core Principle 6: Coherence among mission, goals, actions, and outcomes.

Maine's CTE schools are small learning communities by virtue of their size and their commitment to student learning. Such communities enable teachers to focus instruction around student learning styles, interests and abilities and to develop a personal relationship with their students as suggested by the *Bringing Successful Practices to Scale* initiative. CTE schools already have a strong base upon which to expand their student-centered focus.

### System Design Elements, Strategies, and Action Steps:

#### Student Centered Education: Design Element A. Educational Practice:

**1. Every student benefits from a Personalized Learning Plan (PLP – see *Promising Futures*, Core Practice 6, p. 22) that:**

- ensures collaboration among students, parents, sending schools and CTE centers;
- is supported by a student portfolio;
- accounts for both academic and technical skills attainment, including literacy; and
- drives transitional services and plans.

Strategy 1. Develop common format and implementation plans for PLPs that result in differentiated instructional strategies based on student needs and student access to the best programs.

Strategy 2. Ensure that CTE and sending-school teachers receive training in PLP development and implementation.

Strategy 3. Develop and implement protocols addressing:

- Coordination of implementation strategies among schools;
- Commitment to the development of a quality PLP for each student;

## Vision Area #1: A Student-Centered Education

- Common format, statewide, for PLPs; and
- Ongoing evaluation and amendment.

Strategy 4. Promote these strategies for support and understanding and involve students who can attest to the value of PLPs.

**Action Step a)** (Strategies 1-4) CTE centers and regions work with their sending schools to develop and implement PLPs for students. *CTE directors, with Shelley Reed and Susan Johnson, DOE, as resource persons, start in March 2005*

### **2. All schools implement (K-12) Comprehensive Guidance Plan per new state model.**

Strategy 1. CTE participates in development and implementation (student services).

**Action Step a)** Ensure CTE representation on statewide Comprehensive Guidance Program Committee. *MAVEA, start in November 2004*

**Action Step b)** CTE student services directors and CTE staff develop working partnerships with affiliated schools' guidance counselors to implement the comprehensive guidance model. *Shelley Reed, MAVEA, start in September 2005 or TBD*

Strategy 2. Enable Comprehensive Guidance services in Essential Programs and Services that promote integration between CTE and sending schools.

**Action Step a)** CTE centers and regions work with the MDOE staff and the Maine Education Policy Research Institute to develop an EPS model. *Yvonne Davis, Joanne Allen, David Silvernail, start in August 2005*

### **3. All secondary schools implement collaborative (inclusive of students) decision-making models, to include school governance and program implementation.**

Strategy 1. Schools (staff, students) receive training in collaborative decision-making models).

**Action Step a)** Identify best practices. *Susan Johnson, Great Maine Schools Project, Legislative Youth Council, start in February 2005*

**Action Step b)** Train DOE, CTE staff. *Don Cannan, Patrick Phillips and Great Maine Schools Project, start in October 2005 and ongoing*

**Action Step c)** Involve CTE SOs such as Skills USA, HOSA, DECA, FFA, etc. *Don Cannan, start in March 2005 and ongoing*

### **Student Centered Education: Design Element B. Leadership:**

*Educational leaders emphasize and promote the vision of a student-centered educational system, thereby increasing young people's aspirations, engagement, contributions, and sense of being valued.*

## Vision Area #1: A Student-Centered Education

Strategy 1. Create a statewide campaign to include students in local and state civic activities.

**Action Step a)** Link with Citizenship Education Task Force to share resources and promote common vision for youth involvement. *Lora Downing, DOE, start in September 2005*

Strategy 2. Connect with “Learn and Serve” and other programs of the Corporation for National and Community Service.

**Action Step a)** Share service learning concepts with MAVEA and the field. *Lora Downing, DOE, start in September 2005 and ongoing*

Strategy 3. Identify “best practices” models and develop grants for creating models of student-centered education.

Strategy 4. Disseminate best practices as called for in Promising Futures Core Principle #5: Equitable and Democratic Practices.

Strategy 5. Identify incentives to achieve student inclusion: e.g., the Perkins Act, scholarships, internships, and awards.

Strategy 6. Promote innovation and student involvement.

**Action Step a)** **(Strategies 3-6):** CTE center and region leaders include these strategies in their planning discussions. *MAVEA CIA Committee, start in January 2005*

**Action Step b)** Promote use of service learning in CTE programs, and train on distinction between community service and service learning. *Lora Downing and KIDS Consortium, start in January 2005 and ongoing*

**Action Step c)** Recognize CTE student involvement in service learning. *Lora Downing and KIDS Consortium, Celebrations Committee, start in January 2005 and ongoing*

Strategy 7. Enhance non-traditional enrollment.

**Action Step a)** Rewrite DOE Rule Chapter 232 and the Perkins state plan to require CTE schools to develop methods of improving access and equity, including enhancing non-traditional enrollment. *Yvonne Davis, start in August 2005*

## **Student Centered Education: Design Element C. Professional Development:**

*All teachers use instructional strategies that meet the development and learning needs of individual students.*

Strategy 1. Establish a training program in instructional strategies, including individualized and differentiated instruction (developmentally appropriate), multiple

## Vision Area #1: A Student-Centered Education

intelligences, learning styles and temperaments, literacy issues, universal design, and accounting for personal interests and passion. Training should account for student involvement in the creation and implementation of the plan, how the teacher and the student should work together related to the PLP, and what mutual roles and responsibilities should pertain.

Strategy 2. Identify and promote best practices and models; pilot inclusion models: select one or two initiatives, capture learning, and develop coaching/training resources.

**Action Step a)** (Strategies 1-2): Encourage state, regional, and local professional development programs to include strategies to: a) meet the development needs of all students and b) encourage students' involvement in decision-making. *Yvonne Davis, John Stivers, Patrick Phillips, MAVEA and CISE staffs, start in October 2004 and ongoing*

### **Student Centered Education: Design Element D. Regulation and Policy:**

*Students participate in developing policies and procedures in local SAUs and centers, stakeholder groups, and statewide initiatives.*

Strategy 1. Promote youth inclusion policies that support student participation in developing policies and procedures; employ a network of CTE student organizations to engage and represent students in statewide initiatives; establish a recognition program.

**Action Step a)** Work with CTE student organizations to promote student involvement in governance and decision-making in various organizations. Identify best practices and pilot inclusion programs. *Yvonne Davis and CTE staff, start in March 2005*

## **Vision Area #2: Integration**

*All students benefit from an integrated system of academic and applied learning, based on rigorous expectations and standards, throughout their school experience.*

### **Vision:**

All secondary learning institutions, including CTE and sending schools, encourage and support the integration of rigorous and relevant career, academic, inter-personal, technical, and life skills with applied learning models in all aspects of the teaching and learning process, for all students at all grade levels. Thus we ensure the greatest probability of success in our students' personal and professional lives. In appreciation of each individual's strengths, interest, and limitations, our schools support all students in building social, academic, and technological literacies that will serve them throughout their lives.

*Note: This area now includes many strategies originally suggested as a separate area, "Rigorous Expectations."*

Correlates with *Promising Futures* Core Principles:

Core Principle 1: A safe, respectful and caring environment.

Core Principle 2: High universal expectations with a variety of learning opportunities.

Core Principle 3: Understanding and actions based on assessment data.

Core Principle 4: Teacher practice which values and builds upon the contributions and needs of each learner.

Core Principle 5: Equitable and democratic practices.

Core Principle 6: Coherence among mission, goals, actions, and outcomes.

The State Advisory Committee on Career and Technical Education and the Stakeholder Groups all agree that there is an urgent need to build an integrated, collaborative, dynamic educational system that provides opportunities for all Maine students. Thus Maine will achieve the vision that each Maine student graduates from high school college ready and able to meet the challenges of a technology-based economy. The Committee also recognized that total integration is a long-term transformational process. CTE programs must continue to educate students as schools transform. Therefore, short-term strategies must be in place to accommodate the educational needs of students as well as the demands of postsecondary institutions and the workplace as this process evolves. The strategies for integration outline short and long-term actions that will address existing structural barriers that may hinder progress toward the ultimate goal of integration.

## **System Design Elements, Strategies, and Action Steps:**

### **Integration: Design Element A. Educational Practice:**

*CTE instructors, in partnership with their affiliated high school teachers, understand and deliver academically and technically rigorous curricula and assess student achievement of*



## Vision Area #2: Integration

***MLR and technical skills according to rigorous technical criteria. Collaboration builds a bridge between CTE schools and high schools and informs the long-term integration process through collection and dissemination of models and best practices. Sending schools share the responsibility of ensuring successful integration in all respects.***

Strategy 1. Promote integration with local high school reform efforts underway, including; Promising Futures, Center for Inquiry on Secondary Education (CISE), Great Maine Schools, etc.

**Action Step a)** Define core CTE curriculum, including both academic and technical outcomes:

- i) Form CTE/LAS workgroup by September 1 and report preliminary findings at October 8, 2004 conference. *Patrick Phillips*
- ii) Update Warranted List. (The Warranted List consists of the MLR performance indicators that the CTE schools teach and assess as part of their programs of study.) *John Stivers and CTE consultants, CTE teachers, start in February 2005*

**Action Step b)** Form workgroup, including MAVEA CIA Committee, DOE, sending-school teachers, and CTE teachers. *John Stivers, start in August 2005*

- i) Decide which technical standards level to use (state or national).
- ii) Develop and implement guidelines for academic integration into CTE programs.
- iii) Create implementation plan for guidelines.
- iv) Train teachers.

**Action Step c)** High School Summit Group continues meeting to identify collaborative activities toward greater integration. *Patrick Phillips and Secondary Collaborative, start in January 2005 and ongoing*

Strategy 2. Engage academic teachers to work with CTE program instructors and students to deliver integrated and supportive instruction, curriculum, and assessment that enhance academic rigor and MLR coverage.

**Action Step a)** Include support for strengthening academic content in CTE programs and through more integrated efforts with sending schools and districts through an Essential Programs and Services model and revision of Chapter 232. *Yvonne Davis (EPS, start in August 2005) (Chapter 232, start in August 2005, complete by April 2006)*

**Action Step b)** Review certification rules to support integration. *Yvonne Davis, Nancy Ibarguen, start in May 2005 and ongoing*

**Action Step c)** CTE centers engage academic teachers from their sending schools to collaborate on program and curriculum design, enhancing the presence of academics in the technical curriculum, and to develop units and models that inform integration efforts over time and suggest best practices and models for future structural integration. *Local schools, start in May 2005 and ongoing*

## Vision Area #2: Integration

**Action Step d)** A cadre of academic teachers employed in CTE schools and sending schools will work together to achieve common statewide integration goals and practices. *MAVEA, Curriculum Committee, MPA, John Stivers, Jean Lawrence and group, start in May 2005 and ongoing*

### Integration: Design Element B. Program Design:

*Program design accounts for rigor and relevance in CTE schools and high schools, and expectations of CTE teachers and students are clear with respect to MLR and technical standards. All schools develop curricula that ensure alignment of academics, Personal Learning Plans (PLPs), career/professional content and orientation, business and economic development influences, and higher education.*

Strategy 1. Develop core CTE program curricula comprising career interests, technical content and academics: i.e.

- Use technology to perform workplace tasks and projects;
- Demonstrate understanding of technical concepts, principles and procedures;
- Read, understand and communicate in the language of their career fields; and
- Use mathematical reasoning and understanding to solve problems in a career field.

### *Short-term strategies, CTE-based:*

Strategy 2. Clarify and enable direction on national or industry vs. state technical standards.

Strategy 3. Identify, adapt, or develop integrated curricula.

**Action Step a)** (Strategies 1-3) Design exemplary integrated programs/models – promote specific models by 2006-07 school year. *Yvonne Davis, DOE, CISE, Great Maine Schools, start in September 2005*

**Action Step b)** Continue developing CTE program quality standards, including industry benchmarks, and complete rule making (Ch. 232). *Yvonne Davis, start in August 2005, complete by April 2006*

**Action Step c)** Identify and assimilate past related efforts and findings into foundational document, to include DACUMs, PATHS integration research, Warranted Lists, etc.). *John Stivers, Jack Hoesch, Bill Cassidy, etc., start in June 2005*

Strategy 4. Clarify the role and extent of academics in CTE programs.

**Action Step a)** Participate in the Local Assessment System Implementation Study (LASIS) in 2004-2005 to study the effects of the current LAS on CTE students. *Pam Rolfe, John Stivers, UMO, beginning in November 2004*

## Vision Area #2: Integration

**Action Step b)** Conduct action research with several CTE centers and regions and their affiliated school units to determine current possibilities for CTE participation in sample LASs given LAS Guidelines. *John Stivers, Pam Rolfe, start in November 2004*

**Action Step c)** Use the action research to develop action plans that assure the greatest collaboration between CTE and sending schools so that the CTE work will be accepted as part of the Local Assessment Systems. *John Stivers, Pam Rolfe, start in April 2005 and ongoing.*

**Action Step d)** Align language in statute and rule related to MLR in the CTE programs and the Local Assessment System (LAS). *John Stivers, DOE, start in December 2004*

**Action Step e)** Create “Guidelines for Academic Integration in CTE Programs.” *John Stivers and Pam Rolfe, start in January 2005*

**Action Step f)** Develop Version 2 of CTE Program Warranted Lists of MLR. *John Stivers, start in February 2005*

**Action Step g)** Develop Curriculum Instruction and Assessment for warranted list of MLR. *John Stivers, start in June 2005, complete by 2008*

**Action Step h)** Develop and implement Content Area Literacy program over next two school years (2004-05 – 2005-06) in all CTE programs. *Tim Hathorne, MAVEA Curriculum Committee and CISE, start in October 2004, complete by June 2006*

### **Long-term strategies:**

Strategy 5. Explore, identify, and/or develop various models, such as interdisciplinary looping teams or multi-grade teams, magnet schools, career cluster approaches, pathways, etc, all leading to incorporating integrated academic and career/technical curricula. *See addendum for some models.*

Strategy 6. Enhance CTE integration throughout MLR content areas as appropriate; create career/work-related performance indicators and related performance-based assessments in all content areas.

Strategy 7. Consider and implement structural, system-wide integrated education models per vision, with strong higher education, business, and economic development participation in program design.

**Action Step a)** **(Strategies 5-7)** Design by career cluster/area of interest/thematic approach with an increasing focus on careers through grade level progression (wide focus grade 9, specialize by grade 12, with post-secondary education path). *Middle School guidance counselors, teachers and principals, Yvonne Davis, John Stivers, Lora Downing, Anita Bernhardt, MAVEA, adult education, community colleges, and businesses, start in September 2006*

## Vision Area #2: Integration

**Action Step b)** Work with NEASC to include affiliated CTE schools in the accreditation process for Maine High Schools. *Patrick Phillips, Jackie Soychak, Yvonne Davis, John Stivers start in January 2005, complete by January 2006*

**Action Step c)** Encourage pilot experimentation on partnerships and other structures/models that integrate CTE and academics through grants and other means. *Susan Gendron, Patrick Phillips, John Fitzsimmons, Joseph Westphal, Jackie Soychak, Adult Education, MAVEA, MPA, CISE, Great Maine Schools, start in September 2005 and ongoing*

**Action Step d)** Charge a new group, including the Maine Department of Education Secondary Collaborative, MPA, and MAVEA, to identify, evaluate, and recommend models for implementation leading to secondary school transformation and create external stakeholder advisory group, as appropriate. *MDOE Secondary Collaborative, ongoing: determine specific charge and group membership, start in January 2005. External advisers may include: Sue Dowling; Deb Guimont, Ronda Lecompte, Todd Fields, Al Dickey, and other stakeholders such as businesses and other TBD*

### Integration: Design Element C. Leadership:

*Educational and business leaders at all levels value integrated curriculum in all program areas and promote this vision statewide.*

Strategy 1. Promote the need for change and integration at state, regional, and local levels. Promote our fundamental beliefs, values, and attitudes, and then suggest how to make the changes.

**Action Step a)** Identify specific state and local opportunities to promote integration of academics in all CTE program areas. Include high school principals in particular, and emphasize the rationale for change and the value to all stakeholders. *Yvonne Davis, John Stivers, Tim Hathorne, Don Cannan, Susan Johnson, Norm Higgins, Secondary Collaborative, start in December 2004*

**Action Step b)** Develop a communications plan, to include conferences, list-serves, newsletters, affiliations, etc. *Yvonne Davis, Patrick Phillips, Elaine Briggs, Meg Harvey, and DOE Secondary Collaborative, start in May 2005*

**Action Step c)** Provide “How to lead toward transformational change” training for MAVEA and MPA, to include this vision (as “requirement”). *Yvonne Davis, Todd Fields, MAVEA, start in November 2005*

Strategy 2. Ensure integration with *Learning Results* general work, and the *Learning Results* revisioning process, within the department and with stakeholders.

**Action Step a)** Educational leaders shall encourage and support the continued alignment of MLR with individual program competencies for all program areas. *Susan Gendron, Patrick Phillips, start in October 2004 and ongoing*

## Vision Area #2: Integration

Strategy 3. Develop incentive grant programs to encourage further high school/CTE integration, at schools or through school partnerships based on criteria and outcome measures that assure alignment with state expectations and goals.

**Action Step a)** Maine Department of Education staff works with curriculum integration stakeholders to take advantage of enabling grant opportunities. *DOE, CISE, Great Maine Schools and MAVEA Curriculum Committee, start in January 2005 and ongoing*

### **Integration: Design Element D. Structure:**

*Facilities and other structural elements reflect and promote a commitment to curriculum integration.*

Strategy 1. Charge a new group, including the Maine Department of Education Secondary Collaborative, MPA, and MAVEA to identify, evaluate, and recommend models for implementation leading to secondary school transformation and create external stakeholder advisory group, as appropriate.

Strategy 2. Establish common scheduling and unified professional development activities among CTE centers and affiliated units, as well as collaborative curriculum and assessment development.

**Action Step a) (Strategies 1-2):** Implement MAVEA long-range plan. *DOE and MAVEA, start in January 2005 and ongoing*

**Action Step b)** Complete rule-making process for common regional calendars. *Yvonne Davis, start in October 2004, complete by May 2005*

Strategy 3. Enhance SISME, CTE's student information system, to include student performance data on literacy and other aspects of integration.

**Action Step a)** Determine and develop related SISME capabilities and protocols. *SISME steering committee and MAVEA Curriculum Committee, start in January 2005 and ongoing per relevant developments*

Strategy 4. Ensure that the Essential Programs and Services (EPS) model supports CTE/Academic integration and bold new models that support this vision.

**Action Step a)** Form MAVEA EPS ad hoc committee to inform EPS process. *including Mark Powers, Todd Fields, Joanne Allen, Alan Dickey, and Yvonne Davis, start in August 2005*

### **Integration: Design Element E. Relationships:**

Strategy 1. Promote CTE/HS integrated vision and intentions with major educational stakeholders over the next year (CTE-MAVEA, Maine School Management Association, Maine Principals' Association, Maine LEAD, guidance groups, Maine Math and Science Alliance, Maine Administration of Services for Children with Disabilities, etc.).

## Vision Area #2: Integration

**Action Step a)** Make presentations regarding vision to identified groups at regional and statewide conferences. *Susan Gendron, Patrick Phillips, start in October 2004 and ongoing*

Strategy 2. Engage the Center for Inquiry on Secondary Education, Great Maine Schools, post-secondary education, etc. to achieve integration over time.

Strategy 3. Enhance integration among Maine Department of Education Standards, Assessment, and Regional Services Team, CTE Team, Adult Education, and other interdepartmental teams.

**Action Step a)** (Strategies 2-3): DOE convene meetings with DOE staff and CISE to begin discussions on identification, development, and implementation of integration activities. *Patrick Phillips, start in July 2004 and ongoing*

**Action Step b)** CTE educators join their affiliated districts' staffs to attend January 24 and 25, 2005 symposium on the future of education. Ask for this participation in the Commissioner's letter announcing the symposium. *Patrick Phillips, start in December 2004*

**Action Step c)** Invite SARS consultants to Skills USA conference in March 05 and to other related events (HOSA, FFA, etc.). *John Stivers, start in November 2004*

**Action Step d)** Invite SARS consultants to tour CTE centers in their regions. DOE, CTE team and CTE directors, start in November 2004 and ongoing

**Action Step e)** Expand career pathways, dual credit, and early college options. *Susan Gendron, John Fitzsimmons, Yvonne Davis, and Gary Crocker, start in November 2004 and ongoing*

Strategy 4. Expand core-academic representation on CTE Advisory Committee.

**Action Step a)** Identify academic representatives and appoint to SACCTE. *Susan Gendron and Implementation Committee, start in December 2004*

## Integration: Design Element F. Access and Equity:

Strategy 1. Ensure effective and frequent articulation, co/dual enrollment with higher education.

**Action Step a)** Re-write Chapter 232 of the DOE Rules and the Perkins State Plan to require CTE schools and post-secondary educational institutions to develop methods of integrating programming, improving seamless transitions, dual enrollment and articulation, etc. *Yvonne Davis, start in August 2005, complete by April 2006*

**Action Step b)** Work with Maine Community College System Tech Prep coordinators to create goals for, and to plan and implement, an enhanced articulation/Career Pathways/early college/dual enrollment initiative. *Yvonne Davis, start in March 2005*



**Integration: Design Element G. Professional Development:**

Strategy 1. Ensure alignment of vision/goals/realities with teacher preparation programs (general academic *and* CTE).

**Action Step a)** Form alliance with higher education organizations to ensure that curriculum design for teacher preparation programs includes courses that align with CTE school curriculum. *Yvonne Davis, Al Dickey and Greg Bazinet, start in February 2005 and ongoing*

**Action Step b)** Identify relevant pre-service institutions and programs and form a workgroup to contact the organization(s) identified and begin work on relevant curriculum. *CTE staff, Harry Osgood, start in May 2005*

Strategy 2. Develop and/or engage existing Literacy/Reading in the Content Area workshops, include School Based Learning Teams (SBLT).

Strategy 3. Encourage CTE instructors to expand their knowledge of academic disciplines related to their fields. Provide opportunities to access both pre- service and in-service academic courses related to their fields.

**Action Step a)** **(Strategies 2-3)** Convene the School Based Learning Teams and provide sessions on teaching literacy in the content area. *CTE/MAVEA/Center for Career Development, October 2004 through August 2005*

Strategy 4. Determine in-service professional development program to be commonly implemented inclusive of both CTE and high school staff, incorporating common calendar and regional innovations.

**Action Step a)** Form an ad hoc committee with Maine Principals Association (MPA), Maine School Management Association (MSMA) and Maine Association of Vocational Education Administrators (MAVEA) to determine program and innovations. *John Stivers, Mark Powers, Dick Durost, Ron Barker, Yvonne Davis, start in May 2005 and ongoing*

**Integration: Design Element H. Regulation and Policy:**

Strategy 1. Review and revise existing policies to facilitate integration.

**Action Step a)** Complete the rulemaking process on Chapter 232. *Yvonne Davis, start in August 2006*

**Action Step b)** Convene a workgroup comprised of MDOE staff, CTE practitioners and representatives from the Maine Education Policy Research Institute to begin working on the CTE model for Essential Programs and Services. This model will reflect the goals and objectives of the CTE Strategic Visioning Plan. *Yvonne Davis and Joanne Allen, start in August 2005*

## Vision Area #2: Integration

**Action Step c)** Form a planning committee comprising MAVEA, adult education and community college representatives, then rewrite Perkins State Plan for CTE.  
*Yvonne Davis, start in March 2005*



### **Vision Area #3: Literacy**

*All students and teachers place the highest priority on students' attainment of literacy at levels that will serve them throughout their lives as productive citizens and lifelong learners.*

#### **Vision:**

We support all students in achieving the level of literacy (prose, documentary, and quantitative) they need to be successful in their chosen field(s) of study. Explicit instruction in general literacy strategies and those specific to the discipline is central to the pedagogy and curriculum of all courses. We recognize students' strengths and prior knowledge and engage them in creating meaning and applying higher-order thinking skills. We regularly assess students' levels of literacy and use them to guide further instruction and support. Students regularly apply literacy skills as they research areas of interest, learn new concepts and skills, and solve real problems.

Correlates with *Promising Futures* Core Principles:

Core Principle 2: High universal expectations with a variety of learning opportunities.

The High Schools That Work model stresses literacy and numeracy:

“School leaders and more career/technical teachers at high-implementation schools understand that the purpose of high school career/technical education studies is to produce graduates who can demonstrate the following technical literacy knowledge and skills:

- use technology to perform workplace tasks and projects;
- demonstrate understanding of technical concepts, principles and procedures;
- read, understand and communicate in the language of their career fields; and
- use mathematical reasoning and understanding to solve problems in a career field.”

### **System Design Elements and Strategies:**

#### **Literacy: Design Element A. Educational Practice:**

*All students develop the skills necessary to interpret and apply both print and non-print materials used in their learning.*

Strategy 1. Define “literacy” for the purposes of this plan.

**Action Step a)** CISE works with MAVEA Curriculum Committee to define “literacy” and will consider reading, writing, technological literacy, quantitative literacy – and relate to general academic fluency. *Norm Higgins, MAVEA Curriculum Committee, DOE Adolescent Literacy Committee and Statewide Adolescent Literacy Council, start in February 2005*

Strategy 2. Emphasize content specific literacy skills in all curriculum, instruction, and assessment, K-12.

### Vision Area #3: Literacy

Strategy 3. All high school and CTE educators evaluate and refine their current course content and instructional program and incorporate best literacy practices.

Strategy 4. Educators use student literacy assessment data to adjust instruction at individual, class, and program levels.

**Action Step a) (Strategies 2-4):** Develop a comprehensive state plan K-12. Practices to be realized through Literacy Design Element F: Professional Development. *Norm Higgins and Statewide Adolescent Literacy Council, start in August 2005*

Strategy 5. Establish a common literacy assessment

**Action Step a)** Determine purpose for and adopt Lexile and/or other related standards and measures for CTE, statewide. *DOE, start in October 2004, complete by September 2005*

**Action Step b)** CTE uses common assessment tools (e.g. SRI) to assess student performance. *MAVEA, start in September 2005*

- i) Purchase software or other assessment tools;
- ii) Train test administrators;
- iii) Partner with CISE;
- iv) Provide systematic listing and scoring information; and
- v) Visit leading schools.

#### Literacy: Design Element B. Program Design:

*CTE curriculum and instruction reflect revised Maine Learning Results (MLR) standards and evolving literacy demands of the workplace.*

Strategy 1. Ensure that CTE educators and representatives of business and industry participate in the review of MLR.

Strategy 2. Upon completion of MLR review, ensure that local curriculum and instruction is aligned.

**Action Step a) (Strategies 1-2):** Support the revision of the MLR. *Patrick Phillips, Susan Gendron, start in December 2004 and ongoing*

#### Literacy: Design Element C. Leadership:

*Educational leaders emphasize literacy skill development for all students and provide for collaboration and coordination among educators.*

Strategy 1. Encourage CTE advisory boards to include, as a regular agenda item, analysis of student literacy achievement data and improvement of literacy development programming.

### Vision Area #3: Literacy

Strategy 2. Engage state-level leadership groups (conferences, institutes, etc.) in the promotion of the vision and build awareness of the need for formal literacy programs.

**Action Step a) (Strategies 1-2):** Plan professional development program on literacy education. *MAVEA Curriculum Committee meets with CISE, start in February 2005*

**Action Step b)** Promote literacy initiative through support of Promising Futures Academies and with major stakeholder groups such as the Maine School Management Association, the Maine Principal's Association, etc. *CISE, MAVEA, Secondary Collaborative, start in December 2004 and ongoing*

**Action Step c)** Include "literacy in the content area" as part of Chapter 232. *Yvonne Davis, start in August 2005, complete by April 2006*

Strategy 3. State-level leaders and policy makers develop rules and regulations that remove barriers inhibiting implementation of the vision.

**Action Step a)** Review and revise existing laws, regulations, and policies to support realization of the vision. *Susan Gendron, State Board of Education, and Yvonne Davis, start in August 2005, complete by June 2006*

#### **Literacy: Design Element D. Students and Student Services:**

*CTE schools provide student services that account for the range and diversity of literacy skills required of all students for success in the 21<sup>st</sup>-century workplace.*

Strategy 1. Student services staff shall engage in professional development that provides CTE teachers the knowledge and skills to create personalized educational programming and career counseling services.

**Action Step a)** Convene SBLTs and provide decisions on creating personal learning plan (PLP) and career counseling services. *CTE, MAVEA and CCD, start in September 2005*

Strategy 2. Student services staff shall establish working relationships with area business and industry representatives to remain current in the literacy demands of the workplace.

**Action Step a)** Encourage all instructors to convene their program advisory committees on a regular basis and discuss literacy demands as they pertain to their specific technical program. *MAVEA, CTE instructors, start in May 2005 and ongoing*

#### **Literacy: Design Element E. Relationships:**

*CTE and sending high schools create the connected relationships necessary to ensure content specific literacy, with a deep appreciation and respect for the importance of literacy in their content areas. Cooperative and program advisory boards understand the importance of literacy and support related activities.*

### Vision Area #3: Literacy

Strategy 1. CTE and high school teachers shall identify and use common assessment tools to determine/diagnose each student's general and content specific literacy. Monitor State of Maine Board of Education's regional diagnostic assessment programs.

Strategy 2. CTE and high school teachers shall develop processes to share assessment data and modify instruction based on findings of the data.

Strategy 3. CTE and high school teachers shall engage in common/shared professional development. *Promising Futures, administrators, etc.*

**Action Step a) (Strategies 1-3)** Host high school teachers at CTE schools to develop joint adolescent literacy initiatives. *Norm Higgins, CISE, MAVEA Curriculum Committee, start in May 2005 and ongoing*

**Action Step b)** Use ATM or other technology resources as a delivery method for follow-up literacy meetings. *Local schools/teachers, start in June 2005 and ongoing*

Strategy 4. CTE cooperative and program advisory boards shall be educated about and, as appropriate, educate CTE educators about, literacy in the technical program content areas, and local and statewide initiatives.

**Action Step a)** CTE team presents at board meetings to create awareness, communication and cooperation. *Local teams, start in February 2005 and ongoing*

Strategy 5. Assure that effective literacy instruction is a component of supervision and evaluation.

**Action Step a)** Provide professional development to administrators to evaluate instructional effectiveness of literacy programs. *CISE, MAVEA Curriculum Committee, start in May 2005 and ongoing*

### **Literacy: Design Element F. Professional Development**

***CTE centers across Maine provide high quality literacy programming by offering professional development in literacy.***

Strategy 1. MAVEA identifies literacy development as a high priority action area for all CTE centers in *all* regions of Maine.

Strategy 2. Effective program delivery options are employed to provide professional development in literacy across Maine.

**Action Step a) (Strategies 1-2):** Promote and provide professional development in literacy education using School-based Learning Teams (SBLTs). *DOE and MAVEA, start in October 2004 and ongoing*

### Vision Area #3: Literacy

**Action Step b)** Create CTE Literacy plan. *Norm Higgins, CISE, start in January 2005*

**Action Step c)** Form think tank to define literacy and form the literacy plan leading to Task Force in Spring 2005. *CISE, start in October 2004*

**Action Step d)** Adolescent literacy is a key theme in statewide summit. *Norm Higgins, start in December 2004*

**Action Step e)** Adolescent literacy is one of three key strands with Core Curriculum and laptops at Spring Forum. *Bette Manchester and Norm Higgins, start and end on March 31, 2005*

**Action Step f)** Develop RFP to support CTE centers on high school/CTE collaboration to include literacy. *CISE, start in November 2004, end in March 2005*

**Action Step g)** Promising Futures Summer Academy is open to all high schools and CTE schools and focuses on the relationship between technology and literacy. *Norm Higgins, start in January 2005, end in August 2005*

**Action Step h)** Introduction to adolescent literacy – Three regional professional development series. *Norm Higgins, start in April 2005*

**Action Step i)** Research on literacy work in Maine schools. *Norm Higgins, January 2005 and ongoing*

### Literacy: Design Element G. Structure

*CTE centers have the resources necessary to further literacy in the technical content areas.*

Strategy 1. Consider the staffing implications of the emphasis on literacy – e.g., hiring and/or coordinating with literacy specialists. Long-term actions include the following:

**Action Step a)** Make literacy education a statewide initiative. *DOE, MAVEA and CISE, start in October 2004 and ongoing*

**Action Step b)** Ensure that CTE centers serve as hubs for literacy efforts. *DOE, MAVEA and CISE, start in May 2005 and ongoing*

**Action Step c)** Ensure that PLPs account for literacy development. *DOE, MAVEA and CISE, start in September 2005 and ongoing*

**Action Step d)** Match Lexile and/or other literacy levels with career track and educational performance. *DOE, MAVEA and CISE, start in June 2005 and ongoing*

**Action Step e)** Determine where and how to teach literacy more effectively. *DOE, MAVEA and CISE, start in February 2005 and ongoing*

## **Vision Area #4: Data Analysis**

*Rigorous data analysis drives educational decisions and resource allocation.*

### **Vision:**

All decisions and allocations of resources are based on rigorous analysis of relevant data to ensure that all Maine students benefit to the fullest extent.

Correlates with *Promising Futures* Core Principles:

Core Principle 3: Understanding and actions based on assessment data.

The research on the 30 great schools initiative (*Bringing Successful Practices to Scale*) showed that teachers used data to “analyze where students’ present performance levels are, how those performance levels compare to the instructional materials students use in the classroom, and the performance levels required by students once they graduate from high school.”

### **System Design Elements, Strategies, and Action Steps:**

#### **Data Analysis: Design Element A. Educational Practice:**

*Instruction reflects students’ individual learning styles, aptitudes, interests, and achievement levels based on relevant data.*

**Strategy 1.** Based on research data, enhance instructional practice to reflect students’ individual learning styles, aptitudes, interests, and achievement levels.

**Action Step a)** Develop a comprehensive student assessment system, including SISME, which supports individual student and programmatic success. *MAVEA and DOE, start in May 2005; implementation by May 2006*

Consider:

- i) Incoming student data and student exit data;
- ii) Ongoing use of data to inform the instructional process and align resources to support continuous improvement; and
- iii) Ability to aggregate and disaggregate data into various sub-categories.

#### **Data Analysis: Design Element B. Program Design:**

*Curriculum development is informed by a variety of assessment data and consultation with partners, and is aligned with student interests and business/post-secondary requirements.*

**Strategy 1.** Establish rigorous program benchmarks, accounting for characteristics, standards and outcomes. These include: skills based on national industry standards,

#### Vision Area #4: Data Analysis

academic outcomes, graduation rates, postsecondary and career success, and collaboratively determined outcomes.

**Action Step a)** Design and implement a systematic approach (design SISME) for the aggregation and disaggregation of data to inform individuals and programs in support of continuous improvement. *MAVEA, Charlie Hartman, start in January 2005, end in August 2005*

Strategy 2. Use student success in higher education and in the marketplace as a measure of program efficacy.

**Action Step a)** Develop and implement 1, 3, and 5-year graduate follow-up protocol; define in Perkins plan. *Yvonne Davis and Charlie Hartman, start in December 2004, end in June 2005*

**Action Step b)** Create clearing house or related data sharing protocol and organize in a useful way related to stakeholder interests. *MDOE MIS, Charlie Hartman and the Curriculum Resource Center of Maine, start in June 2006*

**Action Step c)** Collect, analyze, and use data in a timely manner to allocate and re-allocate resources, both human and financial, to ensure continuous improvement in all students. *Yvonne Davis, start in December 2004 and ongoing*

Strategy 3. Review course offerings annually to determine if they are meeting labor market needs.

**Action Step a)** Review labor market information supplied by MDOL. *CTE directors, start in July 2005 and annually*

**Action Step b)** Meet annually with Program Advisory Committees (PAC) to identify needed changes in course offerings. *CTE instructors and PAC members, start in September 2005 and ongoing*

#### **Data Analysis: Design Element C. Leadership:**

*State and local leaders use data to foster a climate of educational innovation.*

Strategy 1. Establish policies that encourage, not constrain, innovation and flexibility.

**Action Step a)** Provide leadership at state and local levels to foster a climate of innovation regarding data-driven continuous improvement. *Susan Gendron, superintendents, principals, CTE directors, start in January 2005 and ongoing*

**Action Step b)** Ensure that new or existing policies, regulations, and laws allow for related, effective collection and sharing of relevant data. *Susan Gendron, Jim Rier, Yvonne Davis, start in August 2005 and ongoing*



## Vision Area #4: Data Analysis

### **Data Analysis: Design Element D. Relationships:**

*All constituencies – CTE programs/centers, sending schools, parents, students, state leaders, post-secondary educators, employers – share data regarding student progress and accomplishments.*

Strategy 1. Enhance MEDMS to incorporate data analysis among education partners and experiences for *all* students, K-16.

**Action Step a)** Establish a mechanism to ensure the ongoing collection, analysis, and dissemination of data to stakeholders for the purpose of continuous improvement. *Jim Rier, Charlie Hartman, start in January 2005 and ongoing*

Strategy 2. Ensure that data collected can allow multi-level coordination and continuity, K-16 (articulation, early college, etc).

**Action Step a)** Establish a partnership with stakeholders to collect, analyze, and disseminate data in order to support continuous improvement for all students. *Yvonne Davis, John Stivers, Meg Harvey and Charlie Hartman, start in June 2005*

**Action Step b)** **(Strategies 1-2):** Share assessment data with all stakeholders, including CTE program staff, center and region directors, students, parents, cooperative board members, superintendents of sending school districts, etc. *CTE Team, MAVEA, start in September 2005 and ongoing*

**Action Step c)** **(Strategies 1-2):** Enable SISME and MDOE data platforms to share information (MEDMS, EF-V 116, 121, etc.). *Charlie Hartman, MDOE MIS, start in January 2005, end in August 2006*

### **Data Analysis: Design Element E. Professional Development:**

*Professional development programs and activities target key areas and measure progress, based on a wide variety of data sets and sources.*

Strategy 1. Align professional development curricula with state and local goals and objectives.

**Action Step a)** Provide time for professional development outside the school day/year to minimize adverse impact on student learning time. *Susan Gendron, MPA, MSMA – local school administrator, start in August 2005 and ongoing*

**Action Step b)** MAVEA consults with DOE/MEA to stay current and relevant with ongoing initiatives. *CTE Team, MAVEA, start in January 2005 and ongoing*

**Action Step c)** CTE staff receives training on best practices on using data to improve instruction and assessment. *School-Based Learning Teams, MAVEA Curriculum Committee, start in September 2006, end in June 2007*



#### Vision Area #4: Data Analysis

##### **Strategy 2.** Provide ongoing staff development in data collection and analysis.

**Action Step a)** Contract with service providers to develop and deliver relevant Training. *Jim Rier, MAVEA and SISME, start in June 2005 and as needed*

**Action Step b)** Build a capacity for staff to collect and analyze data and to make informed, data-driven decisions about individuals, groups, and programs. *(CCQUIMS, CAR) Yvonne Davis, Margaret Harvey Charlie Hartman, start in August 2005*

**Action Step c)** Ensure that professional development addresses ethical and responsible behaviors in collecting, analyzing, and distributing data. *DOE, start in June 2005 and as needed*

**Action Step d)** Explore possibilities to pool and integrate staff development funds to develop models for the collection and analysis of data that support continuous improvement. *MPA, MAVEA, DOE, start in June 2005 and ongoing*

**Action Step e)** Provide time for professional development outside the school day/year to minimize adverse impact on student learning time. *Susan Gendron, local school administrators, MEA, MPA, MSMA, start in August 2005 and ongoing*

### **Vision Area #5: Partnership**

*A partnership between education and business and industry enriches both sectors and informs all students' educational experience.*

**Vision:**

A collaborative partnership of education (K-16), business, and industry creates a highly responsive and flexible relationship that meets the demands of an ever-changing environment through shared resources and technological links. CTE is an incubator for products and processes, and business is an incubator of CTE programs, with training sites shared among businesses, industries and education. Collaboration among academic and CTE teachers and those in business and industry creates a two-way street for all across the whole educational spectrum.

Correlates with *Promising Futures* Core Principles:

Core Principle 5: Equitable and democratic practices.

“Successful school-business partnerships start with matchups among entities that share potential benefits from advancing the prospects of students and adding practical value to their educational experiences. Obviously, there is much to be gained by bringing prospective partners together for the benefit of the community at large.” *Education as a Business Investment*, Willard R. Daggett, EdD, Benedict Kruse, Gary M. Fields, PhD

### **System Design Elements, Strategies, and Action Steps:**

#### **Partnerships: Design Element A. Leadership:**

*Proactive collaboration informs the leadership among educators, business leaders, and economic development practitioners, who share a statewide vision of Maine's future and are committed to transformation in education and its effect on Mainers.*

#### **Strategy 1.     Develop a marketing/information-sharing plan.**

**Action Step a)**     Identify partners – Establish the venue for partnerships, then issue a joint invitation to a statewide meeting. *DOE along with Maine School Management Association and Maine Principals' Association, start in June 2005*

**Action Step b)**     Convene a planning committee for the meeting. *DOE along with MSMA and MPA, start in March 2005*

- i)     Identify return on investment (for partners);
- ii)    Explain the need for partnerships—why is it important;
- iii)   Describe the roles of the partners;
- iv)    Identify the protocols for the partnerships.

**Action Step c)**     Obtain support of the Governor and Legislature. *Susan Gendron, start in February 2005*

## Vision Area #5: Partnership

**Action Step d)** Research successful practices around the state, region and country, and put best practices on web sites. *DOE and local schools, start in March 2005 and ongoing*

Strategy 2. Expand local program advisory committees to include broad participation by new and emerging businesses and related fields, and clarify roles and responsibilities of program advisory committees to ensure their efficacy.

**Action Step a)** Include related expectations in revision of DOE Rule Chapter 232 with input from advisory board representatives and other partners. *Yvonne Davis, start in April 2006*

### Partnerships: Design Element B. Structure:

*Financial arrangements, facilities, and committees are aligned with the vision for education and economic development in Maine and serve as enhancements to more effective partnerships, which in turn strengthen the educational structure.*

Strategy 1. Establish a fast-track approval for CTE programs that align with state and regional economic development priorities.

Strategy 2. Make regulatory changes to foster more effective partnerships (e.g., Perkins State Plan, Chapter 232 of DOE rules).

**Action Step a)** **(Strategies 1-2):** Revise Chapter 232, to include fast-track program approval for Programs that meet economic development priorities, and expansion of program advisory committees. *DOE, start in August 2005, end in April 2006*

Strategy 3. Develop more cross-representation on key boards and committees, locally and statewide.

**Action Step a)** Convene a work group to establish a protocol for organizing a contact list and calendar so that educators know when business/economic development groups meet. Disseminate list/calendar to educators and local schools. *Meg Harvey, start in May 2005 and ongoing*

Strategy 4. Develop training opportunities to be shared across business/industry and education.

**Action Step a)** Provide opportunities for all students and educators to access mentors or mentoring relationships in the community. *Local schools, with the Maine Mentoring Partnership, start in September 2005 and ongoing*

**Partnerships: Design Element C. Relationships:**

*Relationships between people in business/industry and educators are highly responsive and flexible. These relationships are felt in levels of local government that affect the educational system, including local school boards, town councils, etc.*

Strategy 1. Ensure the involvement of business and industrial leaders in the educational community.

**Action Step a)** Identify state associations that relate to cluster groups—match associations to programs at CTE schools. (See page 36 for partial list) *CTE consultants, start in August 2005*

**Action Step b)** Select members from associations to work with programs. *CTE consultants with CTE instructors, start in August 2005*

**Action Step c)** Strengthen and expand superintendents' advisory boards and program advisory committees to include association members. *CTE directors, start in June 2005*

**Action Step d)** Ensure that the partnerships are informed by research and development. *CTE Team, MAVEA, start in June 2005 and ongoing*

**Action Step e)** Provide grants that enable partnerships and collaboration. *DOE, start in July 2005 and ongoing*

**Action Step f)** Celebrate successful partnerships—the Governor could establish awards for business/education partnerships and have a special awards day to recognize them. *Susan Gendron and John Cashman, start in November 2005 and ongoing.*

**Action Step g)** Involve state and local Chambers of Commerce – identify partners

- i) have agenda – ongoing to interface with local education counterparts both CTE and Academics to address business and industry needs of education; and
- ii) establish media outlet. *Department of Economic and Community Development with DOE (involve students), start in November 2005 and ongoing*

Strategy 2. Ensure the participation of business and industry in local educational governance.

**Action Step a)** Create a plan to enhance presence of business and industry in education-related groups above. *Mike Montagna, Yvonne Davis, start in September 2005, end in January 2007*

**Action Step b)** Identify key messages, media, and resources to share with school boards and town councils. *Meg Harvey, Elaine Briggs and Celebrations Committee, start in January 2005 and ongoing*

**Partnerships: Design Element D. Professional Development:**

*Professional development programs offer opportunities for shared learning across education, business and industry, and economic development.*

Strategy 1. Develop training programs and activities that attract educators and those in business/industry; offer opportunities for collaboration.

**Action Step a)** Increase the number of CTE technology updates and bring business/industry representatives to them. *MAVEA, CTE teachers, start in October 2005 and ongoing*

**Action Step b)** CTE teachers attend industry training programs where offered (i.e. Ford Motor Co. bringing automotive teachers to their plant for updates) to keep up with industry changes. *CTE teachers, business association representatives, start in July 2005 and ongoing*

**Action Step c)** Develop a calendar with at least two statewide professional development days for all teachers. *Susan Gendron, start in August 2005 and annually*

## **Partial list of stakeholder associations and institutions**

### **Business and Industry candidates:**

Engineering/Manufacturing and Industrial Technology *Maine Metal Products Assoc.*

Building Trades/Contracting *ABC-Tim Walton? Cianbro*

Health Sciences

Business Management-Marketing technology *MBNA*

Natural Resources and Agriscience Industries *Idexx*

Arts and Communications

Small Business Association

Travel/Tourism/Hospitality *Maine Innkeepers Assoc.*

Law Enforcement

Auto/transportation *Winn Dodge*

Information Technology *Verizon?*

### **Economic development**

Department of Economic and Community Development: Jeff Sosnaud

Economic Development Council of Maine: Mike Duguay

Maine State Chamber: Chris Hall

Maine Jobs Council/Labor: Commissioner Laura Fortman

Maine Human Resources (HR)

Small Business Development Centers: John Massaua

## State Advisory Committee on Career and Technical Education

<p>Ms. Joanne Allen School Finance Consultant Maine Department of Education 23 State House Station Augusta, ME 4333-0023</p> <p>Tel: 624-6796 Fax: 624-6791 E-mail: <a href="mailto:joanne.allen@maine.gov">joanne.allen@maine.gov</a></p>	<p>Laurie Lachance, State Economist State Planning Office 38 State House Station Augusta, ME 04333-0038</p> <p>Tel: 287-1479 Fax: 287-6489 E-mail: <a href="mailto:laurie.lachance@maine.gov">laurie.lachance@maine.gov</a></p>
<p>Don Cannan, Director Lewiston Regional Technical Center 156 East Avenue Lewiston, ME 04240</p> <p>Tel: 795-4144 Fax: 795-4147 E-mail: <a href="mailto:dcannan@lewnet.avcnet.org">dcannan@lewnet.avcnet.org</a></p>	<p>Craig Larrabee Jobs for Maine's Graduates 337 Maine Avenue Farmingdale, Maine 04344</p> <p>Tel: 582-0924 Fax: 582-0938 E-mail: <a href="mailto:craig.larrabee@jmg.org">craig.larrabee@jmg.org</a></p>
<p>William Cassidy, President Washington County Community College RR 1, Box 22C (River Road) Calais, ME 04619</p> <p>Tel: 454-1000 Fax: 454-1017 E-mail: <a href="mailto:bcassidy@wccc.me.edu">bcassidy@wccc.me.edu</a></p>	<p>Geoffrey Nelson, Instructor Westbrook Regional Vocational Center 125 Stroudwater Street Westbrook, ME 04092</p> <p>Tel: 854-0820 Fax: 854-0822 E-mail: <a href="mailto:nelsong@westbrookschoools.org">nelsong@westbrookschoools.org</a></p>
<p>Norm Higgins P.O. Box 594 Dover-Foxcroft, ME 04426</p> <p>Tel: 564-7347 E-mail: <a href="mailto:normhiggins@adelphia.net">normhiggins@adelphia.net</a></p>	<p>Jack Norris 1421 Aroostook Road Wallagrass, ME 04781</p> <p>Home Tel: 834-3666 Office Tel: 834-3155 E-mail: <a href="mailto:soldierpond@pivot.net">soldierpond@pivot.net</a></p>

<p>Scott Phair, Director Capital Area Technical Center 40 Pierce Drive Augusta, ME 04330</p> <p>Tel: 626-2475 Fax: 626-2498 E-mail: <a href="mailto:sphair@augustaschools.org">sphair@augustaschools.org</a></p>	<p>Valerie Seaberg, Team Leader and Policy Director Rest Team Maine Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6834 Fax: 624-6821 E-mail: <a href="mailto:valerie.seaberg@maine.gov">valerie.seaberg@maine.gov</a></p>
<p>Shelley Reed, Coordinator Truancy, Dropout, Alternative &amp; Homeless Education Maine Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6637 Fax: 624-6700 E-mail: <a href="mailto:shelley.reed@maine.gov">shelley.reed@maine.gov</a></p>	<p>Jackie Soychak, Team Leader and Policy Director Federal Program Services Maine Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6734 Fax: 624-6731 E-mail: <a href="mailto:jacqueline.soychak@maine.gov">jacqueline.soychak@maine.gov</a></p>
<p>Jim Rog College of Education Human Development University of Maine 326 Shibbes Hall Orono, ME 04469</p> <p>Tel: 581-2449 Fax: 581-2423 E-mail: <a href="mailto:jim.rog@umit.maine.edu">jim.rog@umit.maine.edu</a></p>	



***CORE PLANNING GROUP AND COMMITTEE MEMBERS***

<p>Yvonne Davis, Director Career and Technical Education Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6730 Fax: 624-6731 E-mail: <a href="mailto:yvonne.davis@maine.gov">yvonne.davis@maine.gov</a></p>	<p>Patrick Phillips, Deputy Commissioner Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6620 Fax: 624-6601 E-mail: <a href="mailto:patrick.phillips@maine.gov">patrick.phillips@maine.gov</a></p>
<p>Tim Hathorne, Director Mid-Coast School of Technology 1 Main Street Rockland, ME 04841</p> <p>Tel: 594-2161 Fax: 594-7506 E-mail: <a href="mailto:tim@mcst.tec.me.us">tim@mcst.tec.me.us</a></p>	<p>John Stivers, Curriculum Coordinator Career and Technical Education Department of Education 23 State House Station Augusta, ME 04333-0023</p> <p>Tel: 624-6745 Fax: 624-6731 E-mail: <a href="mailto:john.stivers@maine.gov">john.stivers@maine.gov</a></p>

## GLOSSARY

- ATM—Asynchronous Transfer Mode
- CAR—Consolidated Annual Report
- CCD—Center for Career Development
- CCQUIMS—Comprehensive Continuous Quality Improvement Monitoring System
- CIP—Curriculum Integration Project
- CTE—Career and Technical Education
- CIA—curriculum, instruction and assessment
- CISE—Center for Inquiry in Secondary Education
- CTESOs—Career and Technical Education Student Organizations
- DACUM—Developing a Curriculum
- DECA—student organization for Marketing Education students
- DOE and MDOE—Maine Department of Education
- EPS—Essential Programs and Services
- FFA—student organization for agriculture and natural resources students
- HOSA—Health Occupations Students of America
- KIDS Consortium—Kids Involved Doing Service
- LAS—Local Assessment System
- Maine LEAD—Maine Education Leadership Consortium
- MAVEA—Maine Association of Vocational Education Administrators
- MEA—Maine Education Association
- MEDMS—Maine Education Data Management System
- MIS—Management Information System
- MLR—Maine Learning Results
- MPA—Maine Principals Association
- MSMA—Maine School Management Association
- MSSMA—Maine School Superintendents Association
- NEASC—New England Association of Schools and Colleges
- PAC—Program Advisory Committee
- PLP—Personal Learning Plan
- SARS—State Assessment and Regional Services
- SBLT—School-Based Learning Team
- Skills USA—student organization for all CTE students
- SISME—Student Information System for Maine
- SRI—Scholastic Research Institute

### COLOR CODE:

**Visions - Red**

**Design Elements – Dark Red**

**Strategies – Blue**

**Action Steps – Green**